Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

4. (currently amended): A method of depositing a metallic layer on an exposed surface of previously deposited insulating layer on a substrate, said method comprising:

treating the exposed surface with hydrogen or a gaseous source of hydrogen in the presence of a plasma; and

depositing the metallic layer over the exposed surface,

wherein the hydrogen treatment occurs prior to or during the deposition of the metallic layer, and wherein ~~the extent~~ a duration and plasma power of the hydrogen treatment are sufficient to improve the crystal orientation of the deposited metallic layer ~~is~~ such that the x-ray diffraction peak half width on a crystallographic plane of the deposited metallic layer is narrowed relative to the x-ray diffraction peak half width on the crystallographic plane of a metallic layer deposited in the absence of the hydrogen treatment.

6. (previously amended): The method as claimed in Claim 4 wherein the plasma is an Inductively Coupled Plasma.

7. (previously amended): The method as claimed in Claim 6 wherein the substrate is placed on an RF biased platen.

8. (previously amended): The method as claimed in Claim 7 wherein the platen is heated.

9. (previously amended): A method of depositing a metallic layer on an exposed surface of previously deposited insulating layer on a substrate, said method comprising:

treating the exposed surface with hydrogen or a gaseous source of hydrogen in the presence of a plasma; and

depositing the metallic layer over the exposed surface,

wherein the hydrogen treatment occurs prior to or during the deposition of the metallic layer, and wherein the plasma is supplied by a Reactive Ion Etching process.

10. (previously amended): The method as claimed in Claim 9 wherein the hydrogen treatment time is less than 15 minutes.

13. (currently amended): A method of depositing a metallic layer including using atomic hydrogen to modify the ~~modification of its~~ crystallographic structure of the deposited metallic layer ~~by the use of atomic hydrogen~~, wherein the metallic layer is titanium or a titanium alloy and the modification includes the enhancement of the <002> crystallographic orientation of the ~~titanium or alloy~~ metallic layer relative to a titanium or titanium alloy layer deposited without the use of atomic hydrogen to modify its crystallographic structure.

14. (currently amended): A method of depositing a metallic layer including using atomic hydrogen to modify the ~~modification of its~~ crystallographic structure of the deposited metallic layer ~~by the use of atomic hydrogen~~, wherein the metallic

layer is copper, copper alloy, aluminum, or an aluminum alloy and the modification includes the enhancement of the <111> crystallographic orientation of the metallic layer relative to a copper, copper alloy, aluminum, or an aluminum alloy layer deposited without the use of atomic hydrogen to modify its crystallographic structure.

15. (previously amended): A method as claimed in Claim 1 wherein the metallic layer is deposited as a piezoelectric layer of an acoustic wave device.

16. (previously amended): A method as claimed in Claim 13 wherein the metallic layer is deposited as a piezoelectric layer of an acoustic wave device.

17. (original): A method as claimed in Claim 14 wherein the metallic layer is deposited as a piezoelectric layer of an acoustic wave device.

18. (new): The method of Claim 4, wherein the x-ray diffraction peak half width on the crystallographic plane of the deposited metallic layer is less than 2.5°.

19. (new): The method as claimed in Claim 4, wherein the plasma is supplied by a Reactive Ion Etching process.